



# **Jeanne Clinton slides to flash on screen during my 10-min remarks**

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**UCLA**

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## DG Policies and Programs

DG Type	Programs
<b>System-Side Generation or Utility-Side Procurement</b> <b>2850 MW+ to start</b>	<b>Renewable Portfolio Standard (RPS) Program</b> <ul style="list-style-type: none"> <li>▪ Feed-in Tariffs (<b>750 MW</b>)</li> <li>▪ Renewable Auction Mechanism (RAM) (<b>1,000 MW first 2 yrs</b>)</li> <li>▪ Utility Solar PV Programs (<b>1,100 MW</b>)</li> <li>▪ Competitive Solicitations and Bilateral Contracts (no limit)</li> </ul>
	<b>Combined Heat and Power (CHP) Programs</b> <ul style="list-style-type: none"> <li>▪ Qualifying Facility (QF) Contracts (no limit)</li> <li>▪ Feed-in Tariff (FIT) under AB 1613 (Blakeslee, 2007) (no limit)</li> </ul>
<b>Customer-Side Generation or Self-Generation</b> <b>3000 MW++</b>	<b>Go Solar California: Solar Photovoltaic (PV) Rebates</b> <ul style="list-style-type: none"> <li>▪ California Solar Initiative (CSI) – CPUC (1,940 MW)</li> <li>▪ New Solar Homes Program (NSHP) – CEC (400 MW)</li> <li>▪ Publicly-Owned Utilities (700 MW)</li> </ul>
	<b>Other Customer-Side Self Generation Rebates</b> <ul style="list-style-type: none"> <li>▪ Self-Generation Incentive Program (SGIP) – CPUC (also storage, pending adding CHP) (based on budget)</li> <li>▪ Emerging Renewables Program (ERP) – CEC (based on budget)</li> </ul>





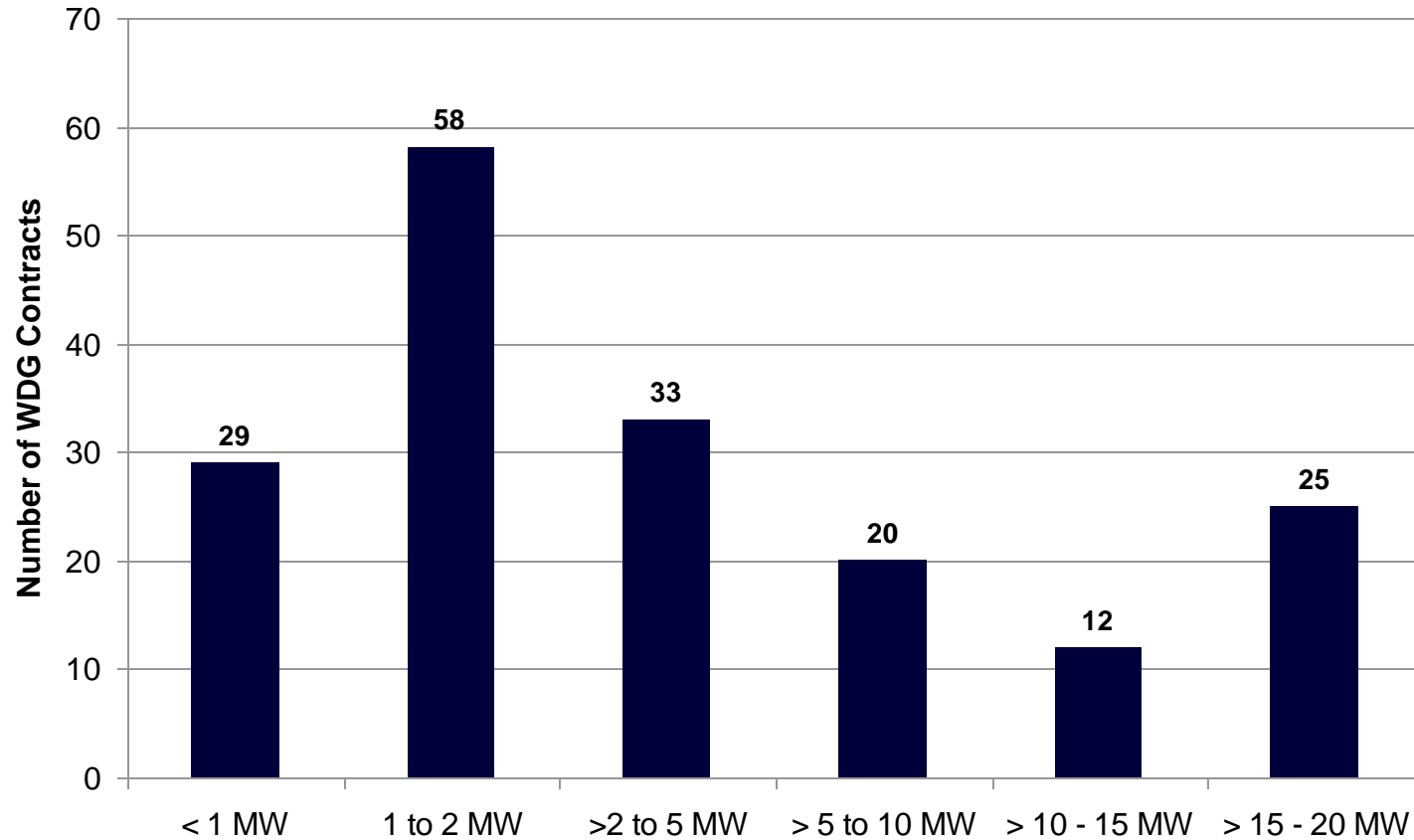
# Comparison of DG Policies and Programs

	Customer Generation or Self-Generation Offset Customer's Load	Wholesale Generation Procurement (Sell to Utility or Other)
Size and Incentives	<p>Supports Generation <b>up to 5 MW</b> in project size with <b>incentives toward investments</b>:</p> <ul style="list-style-type: none"> <li>• California Solar Initiative (CSI): Solar PV and thermal up to 1 MW</li> <li>• Self-Generation Incentive Program: Wind and Fuel Cells up to 3 MW</li> </ul>	<p>Projects of <b>any size eligible</b> for various <b>contracts, but not for incentives, rebates or subsidies</b>. Price and size requirements based on contract path:</p> <ul style="list-style-type: none"> <li>• RPS Competitive Solicitations</li> <li>• Feed-in Tariff</li> <li>• Qualifying Facility program</li> <li>• Utility system-side solar PV programs</li> <li>• Renewable Auction Mechanism (RAM)</li> </ul>
RPS?	<p>Projects do <b>not</b> qualify for RPS, (<u>except</u> for NSC power once logistics resolved)</p> <ul style="list-style-type: none"> <li>• Customer retains Renewable Energy Credits (RECs)</li> </ul>	<p><b>Does qualify for RPS</b></p> <ul style="list-style-type: none"> <li>• RECs transfer to buyer as per contract</li> </ul>
NEM?	Projects qualify for Net Energy Metering (NEM) and Net Surplus Compensation (NSC)	Does <u>not</u> qualify for Net Energy Metering (NEM)
Export?	<b>Projects sized to customer load, not designed for export</b>	<b>Projects sized for export of generation</b> , size larger than customer onsite load if located at a customer site
Demand vs. Supply?	Reduces Electricity Demand: <b>Counts Towards Reduced Demand Forecast like Energy Efficiency</b>	Provides Electricity Supply: <b>Counts Towards Procurement and Resource Adequacy Obligations</b>
Interconnection? 3	<p>Most exempt from interconnection charges.</p> <p><b>Rule 21 allows for "Simplified Interconnection"</b></p> <p>3</p>	<p>Generator pays interconnection charges:</p> <p>May interconnect under CPUC's Rule 21 or FERC's Self Generation Interconnection Protocol (SGIP) and Wholesale Distribution Access Tariff (WDAT)</p> 



# Wholesale DG Contracts by Capacity

Executed contracts for projects up to 20 MW





## Renewable Feed-in Tariff Program

- RPS-eligible technologies up to 1.5 MW (to expand to 3 MW soon)
- Price is the “market price referent” (about \$100 - \$120/MWh)
- Nearly 40 MW are under contract now

### FIT Contracts by Utility

IOU	Contracts	Capacity (MW)
PG&E	36	32.7
SCE	1	1.1
SDG&E	3	4.5
Total	40	38.5

### FIT Contracts by Technology

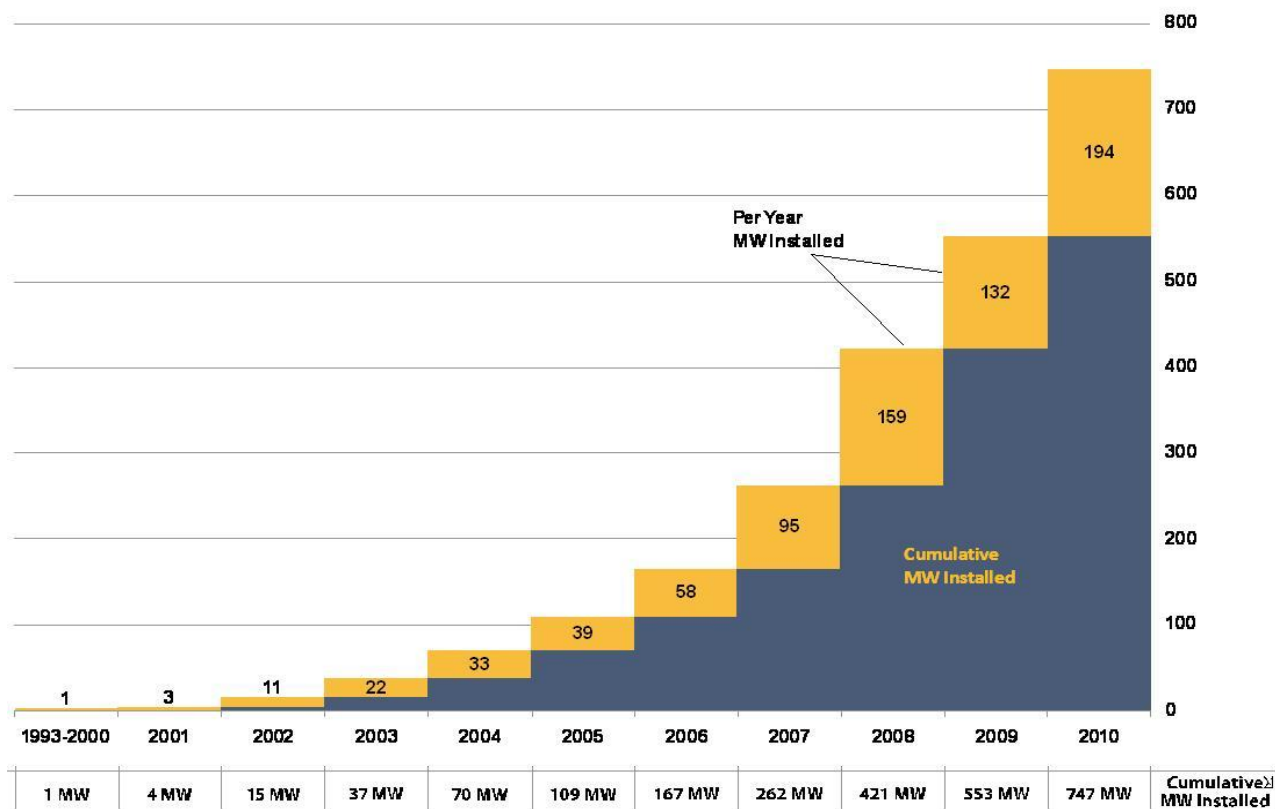
Technology	Contracts	Capacity (MW)
Biogas	15	16.3
Biomass	1	0.8
Solar PV	10	14.4
Small Hydro	14	6.85
Total	40	38.5





# California Leads the Nation in Installed Solar PV

- California has 900+ MW installed PV at 94,000+ locations
- California >2/3 of nation's solar market and nation's largest rebate program



Date: June 1, 2011. Data Shown ONLY includes customer-side of the meter self-generation solar. Does not include RPS or wholesale-side solar projects that serve utility load.

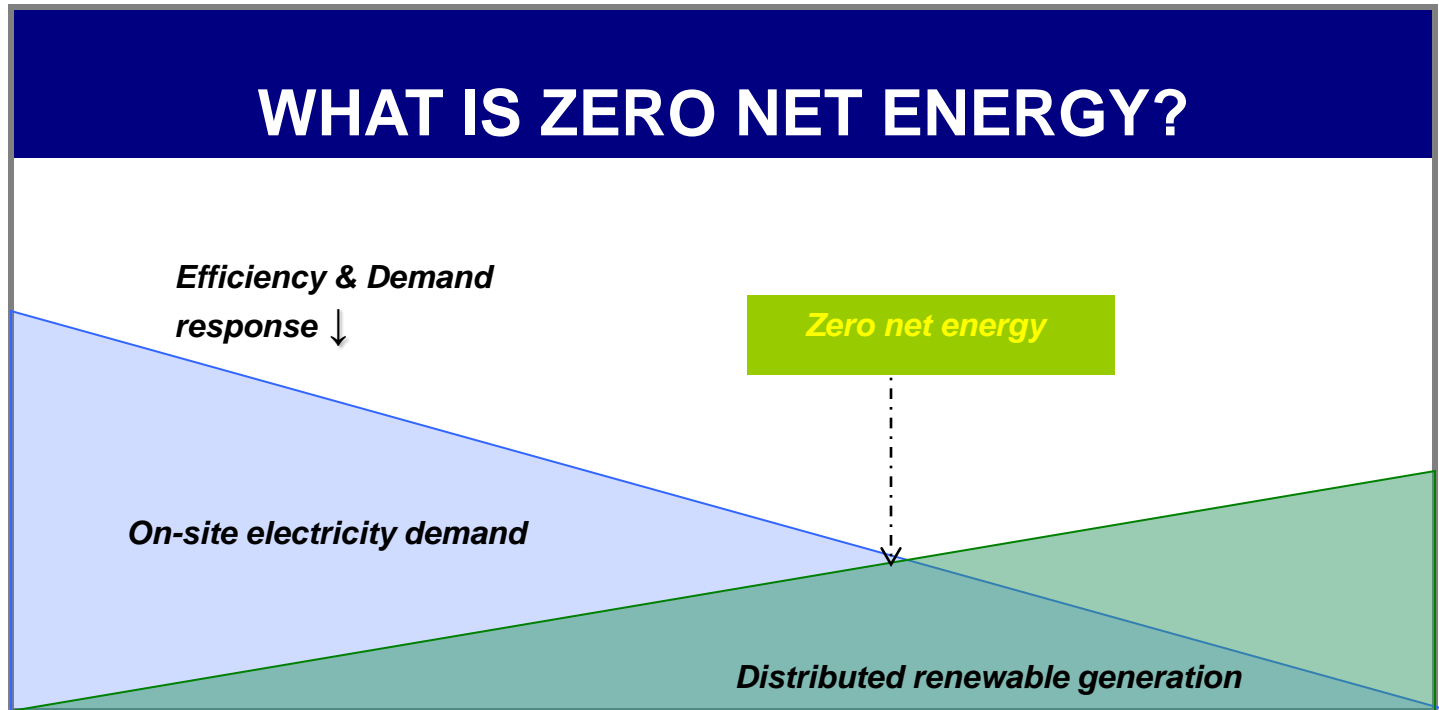
Sources: IOU data based on CPUC collected interconnection reports, except 2010 data which is based on CSI Program Data only.

POU data based on California Energy Commission data, available through 2009 only.





# Zero Net Energy Goal for New Buildings



**“ZNE- The amount of energy provided by on-site renewable energy sources is equal to the amount of energy used by the building.**

